

**MICHIGAN DEPARTMENT OF CIVIL SERVICE
JOB SPECIFICATION**

METROLOGIST

JOB DESCRIPTION

Employees in this job complete or oversee a variety of professional assignments, in a laboratory and in the field, to carry out the state program for the regulation of weights and measures and motor fuels quality.

There are four classifications in this job.

Position Code Title – Metrologist-E

Metrologist 9

This is the entry level. As a trainee, the employee carries out a range of professional metrologist assignments while learning the methods of the work.

Metrologist 10

This is the intermediate level. The employee carries out an expanding range of professional metrologist assignments in a developing capacity.

Metrologist P11

This is the experienced level. The employee performs a full range of professional metrologist assignments in a full functioning capacity. Considerable independent judgement is used to make decisions in carrying out assignments that have significant impact on services or programs. Guidelines may be available, but require adaptation or interpretation to determine appropriate courses of action.

Position Code Title – Metrologist-A

Metrologist 12

This is the advanced level. The employee may function as a lead worker or senior worker. At this level, employees are responsible for overseeing the work assignments of other professionals or have regular assignments, which have been recognized by Civil Service as having significantly greater complexity than those assigned at the experienced level in the series.

NOTE: Employees generally progress through this series to the experienced-level based on satisfactory performance and possession of the required experience.

JOB DUTIES

NOTE: The job duties listed are typical examples of the work performed by positions in this job classification. Not all duties assigned to every position are included, nor is it expected that all positions will be assigned every duty.

Tests, calibrates and certifies standards of mass, volume and length for other laboratories, industrial firms and state, county and city jurisdictions.

Maintains the accreditation as prescribed by the National Institute of Standards and Technology for certification of the state weights and measures laboratory.

Participates in surveillance exercises and calibration problems involving standards and equipment for review and approval by the National Institute of Standards and Technology.

Certifies the weight, measure or volume of packaged commodities submitted for determination of net quantity or capacity.

Provides technical support regarding weights and measures issues.

Conducts field inspections and calibrations of specialized equipment, such as slowflow meters and bulk storage tanks at distilleries.

Serves as a witness in court cases involving the accuracy of testing equipment and test procedures.

Advises industry personnel and sealers in local jurisdictions as to the selection of proper weighing, measuring and testing equipment.

Participates in technical training courses and modules sponsored by the state, the National Institute of Standards and Technology, or the National Conference on Weights and Measures.

Recommends the purchase of laboratory or field equipment.

Conducts field inspections and tests of weighing and measuring devices and/or systems for proper construction, operation and accuracy.

Inspects devices, packages and containers at establishments where commodities are weighed, measured or counted and motor fuels are handled, manufactured, processed, stored, or offered for sale in order to ensure compliance with state laws.

Conducts field tests for water, alcohol sediments, vapor pressure and octane levels in gasoline for compliance with the Motor Fuels Quality Act.

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Conducts investigations, secures evidence for use in preparing reports, presents evidence, and testifies in court cases related to violations of weights and measures and motor fuels quality laws.

Explains state motor fuels and weights and measures laws to consumers, industry representatives and government officials.

Verifies that proper methods and courses of action have been taken to correct violations of motor fuels and weights and measures laws.

Speaks before interested groups on general and specific phases of weights and measures and/or motor fuels quality work.

Serves as an expert witness in court cases involving the accuracy of testing equipment and test procedures.

Participates in on the job training for program staff.

Maintains records and prepares reports and correspondence related to the work.

May perform related essential functions appropriate to the class and other non-essential functions as required.

Additional Job Duties

Metrologist 12 (Lead Worker)

Oversees the work of professional staff by planning, making and reviewing work assignments, establishing priorities, coordinating activities, and resolving related work problems.

Participates in the advanced technical training for program staff, industry officials and other interested parties.

Meteorologist 12 (Senior Worker)

On a regular basis, performs professional metrologist assignments, which are recognized by Civil Service as more complex than those assigned at the experienced level.

JOB QUALIFICATIONS

Knowledge, Skills, and Abilities

NOTE: Some knowledge in the area listed is required at the entry level, developing knowledge is necessary at the intermediate level, considerable knowledge is required at the experienced level, and thorough knowledge is required at the advanced level.

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Knowledge of the National Institute of Standards and Technology handbooks covering specifications, tolerances, and requirements for commercial weighing and measuring devices.

Knowledge of specifications and tolerances of the various classes of mass, volume and length standards to insure certification to their proper classes.

Knowledge of the various types of weighing and measuring devices and systems in commercial use.

Knowledge of state laws pertaining to motor fuels quality and weights and measures.

Knowledge of motor fuels quality and weights and measures inspection methods.

Knowledge of physics, chemistry, applied mathematics and computer programs/systems.

Knowledge of legal evidence and enforcement procedures relative to the work.

Ability to pass metrologist certification tests and/or other courses and modules conducted by the state, the National Institute of Standards and Technology or other training sources.

Ability to detect irregularities in the operation of weighing and measuring devices.

Ability to work effectively with industry personnel, other agencies and local jurisdictions.

Ability to apply laws, rules, and regulations to the work.

Ability to observe critically and obtain accurate data.

Ability to serve as an expert witness.

Ability to plan work assignments, maintain records, and prepare reports and correspondence related to the work.

Ability to communicate effectively with others and speak before groups.

Ability to maintain favorable public relations.

Additional Knowledge, Skills, and Abilities

Metrologist 12 (Lead Worker)

Ability to organize and coordinate the work of others.

Ability to set priorities and assign work to other professionals.

Working Conditions

Some jobs require the employee to be frequently exposed to gaseous fumes during testing of fuel delivery systems for accuracy, quality conformance, water, sediments and octane levels.

The jobs require travel.

Physical Requirements

The job duties require an employee to lift and move heavy objects.

Education

Possession of a bachelor's degree in a field related to scientific measurement such as the physical sciences, mathematics, industrial technology, computer science or engineering.

Experience

Metrologist 9

No specific amount or type of experience is required.

Metrologist 10

One year of professional experience involving the application of knowledge of weights and measures inspection techniques and devices and/or motor fuels quality programs, in such areas as enforcement, laboratory work, or training.

Metrologist P11

Two years of professional experience involving the application of knowledge of weights and measures inspections techniques and devices and/or motor fuels quality programs, in such areas as enforcement, laboratory work, or training.

Metrologist 12

Three years of professional experience involving the application of knowledge of weights and measures inspections techniques and devices and/or motor fuels quality programs, in such areas as enforcement, laboratory work, or training, including one year equivalent to an experienced level Metrologist in state service.

Alternative Education and Experience

Metrologist 9

Possession of an associate's degree in industrial or electronic systems technology, computer technology, industrial engineering technology, metrology, mathematics, physics or a field related to scientific measurement and four years of experience as an

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experienced level Weights and Measures Inspector in state service will substitute for the education required for the entry level Metrologist.

Special Requirements, Licenses, and Certifications

Some positions within this class series are assigned job duties that may require possession of the commercial driver's license issued by the Secretary of State as required by Public Act 346 of 1988 to operate a designated state vehicle.

NOTE: Equivalent combinations of education and experience that provide the required knowledge, skills, and abilities will be evaluated on an individual basis.

JOB CODE, POSITION TITLES AND CODES, AND COMPENSATION INFORMATION

<u>Job Code</u>	<u>Job Code Description</u>	
METROLGST	Metrologist	
<u>Position Title</u>	<u>Position Code</u>	<u>Pay Schedule</u>
Metrologist-E	METRGSTE	H21-001
Metrologist-A	METRGSTA	H21-009

ECP Group 2
8/20/2000
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